

AMENDMENTS TO THE CLAIMS:

The below listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-93. (Canceled)

94. (Previously Presented) A filter element for capturing embolic debris released into the bloodstream of a blood vessel of a patient, comprising:

a central region having an inlet opening and defining a storage reservoir for capturing embolic debris, the central region having a plurality of openings adapted to allow blood to flow therethrough but capture embolic debris larger than the size of the openings and contain the debris within the reservoir; and

a filter edge integral with the central region and having an inlet opening, the filter element being adapted to move from an expanded position to a collapsed position by sliding a restraining sheath initially over the filter edge and thereafter over the central region to move at least a portion of the filter element into the restraining sheath, the filter edge having a pattern of alternating peak regions and valley regions which prevent the filter edge from entering into the restraining sheath all at one time, wherein each valley region has a particular depth and each peak region has a particular height and at least two peak regions have different heights and the central region and filter edge are made from a filter membrane.

95. (Original) The filter element of claim 94, wherein the filter edge has a sinusoidal configuration which includes peak and valley regions.

96. (Previously Presented) The filter element of claim 94, wherein the peak regions are attachable to struts of a strut assembly.

97. (Previously Presented) The filter element of claim 94, wherein the filter edge includes at least a first valley region and a second valley region, the depth of the first valley region being smaller than the depth of the second valley region.

98. (Previously Presented) The filter element of claim 94, wherein the filter edge includes at least a first valley region and a second valley region, the depth of the first valley region being the same as the depth of the second valley region.

99. (Previously Presented) The filter element of claim 94, wherein the filter edge includes at least a first peak region, a second peak region and a third peak region, the height of the first peak region being less than the height of the second peak region and the height of the second peak region being less than the height of the third peak region.

100. (Previously Presented) The filter element of claim 99, wherein the filter edge includes at least a first valley region and a second valley region, the depth of the first valley region being smaller than the depth of the second valley region.

101. (Previously Presented) A filter element for capturing embolic debris released into a body vessel, comprising:

a central region having an inlet opening and defining a storage reservoir for capturing embolic debris, the central region having a plurality of openings; and

a filter edge integral with the central region and having an inlet opening, the filter element being adapted to move from an expanded position to a collapsed position by sliding a restraining sheath initially over the filter edge and thereafter over the central region to move at least a portion of the filter element into the restraining sheath, the filter edge having a pattern of alternating peak regions and valley regions, wherein each valley region has a particular depth and each peak region has a particular height, at least two peak region having different heights and each valley region has a round configuration which reduces stress concentration at the valley region and the central region and filter edge are made from a filter membrane.

102. (Previously Presented) The filter element of claim 101, wherein each valley region has a semi-circular shape.

103. (Previously Presented) The filter element of claim 101, wherein each peak region has a round configuration.

104. (Previously Presented) The filter element of claim 101, wherein each valley region has a different depth.

105. (Previously Presented) A filter element for capturing embolic debris released into a body vessel, comprising:

a central region having an inlet opening and defining a storage reservoir for capturing embolic debris, the central region having a plurality of openings; and

a filter edge integral with the central region and having an inlet opening, the filter element being adapted to move from an expanded position to a collapsed position by initially drawing the filter edge into the catheter and thereafter the central region to move at least a portion of the filter element into the catheter, the filter edge having a sinusoidal pattern of alternating peak regions and valley regions, wherein the filter element can be drawn into the catheter and the valley regions are staggered so that no two valley regions enter the catheter at the same time and the central region and filter edge are made from a filter membrane.

106. (Previously Presented) The filter element of claim 105, wherein the peak regions are staggered so that no two peak regions enter the catheter at the same time

107. (Previously Presented) The filter element of claim 106, wherein each of the peak regions and valley regions have a round configuration.

108. (Previously Presented) The filter element of claim 94, wherein each valley region has a semi-circular shape.

109. (Previously Presented) The filter element of claim 94, wherein each peak region has a round configuration.

110. (Previously Presented) The filter element of claim 105, wherein each valley region has a semi-circular shape.

111. (Previously Presented) The filter element of claim 105, wherein each peak region has a round configuration.

112. (Previously Presented) The filter element of claim 94, further including a strut assembly having a plurality of radially expandable struts which extend from a proximal end of the strut assembly to a distal end of the strut assembly, wherein each peak region of the filter edge is attached to one of the plurality of radially expandable struts.

113. (Previously Presented) The filter element of claim 101, further including a strut assembly having a plurality of radially expandable struts which extend from a proximal end of the strut assembly to a distal end of the strut assembly, wherein each peak region of the filter edge is attached to one of the plurality of radially expandable struts.

114. (Previously Presented) A filter assembly for capturing embolic debris released into the bloodstream of a blood vessel of a patient, comprising:

a frame assembly made from a self-expanding material and having a plurality of longitudinally extending struts that move between a collapsed position and an expanded position; and

a filter element made from a filter membrane attached to the frame assembly, the filter element having a central region with an inlet opening and defining a storage reservoir for capturing embolic debris, the central region having a plurality of openings adapted to allow blood to flow therethrough but capture embolic debris larger than the size of the openings and contain the debris within the reservoir, and a filter edge integral with the central region and having an inlet opening, the filter edge having a pattern of alternating peak regions and valley regions, each valley region having a particular depth and each peak region has a particular height and at least two peak regions having different heights.

115. (Previously Presented) The filter element of claim 114, wherein each strut has a proximal end and a distal end, the proximal ends of the struts being attached to a proximal collar and the distal ends being attached to a distal collar.

116. (Previously Presented) The filter element of claim 115, wherein each peak region is attached to a strut of the frame assembly.